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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Benjamin J. Parker) Group Art Unit: 2623
)
Serial No.: 10/004,396) Confirmation No.: 5884
)
Filed: 11/15/2001) Examiner: Omar S. Parra
)
For: Centralized IP Video Gateway With Port) Atty. Docket: 1692(15725)
Extenders Having Remote Control Interfaces)

AMENDED BRIEF ON APPEAL

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is an appeal from the rejection of the Examiner dated January 28, 2008, rejecting claims 1-15. This Amended Brief is submitted in response to the Notice of Non-Compliant Brief mailed May 23, 2008. The brief fee has already been paid.

REAL PARTY IN INTEREST

The real party in interest in the present appeal is Sprint Communications Company L.P, assignee of the entire right, title, and interest in the present application.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences known to appellant, the appellant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

STATUS OF CLAIMS

The status of the claims is as follows:

Claims allowed: none.

Claims objected to: none.

Claims rejected: 1-15.

Claims withdrawn: none.

Claims canceled: none.

The claims being appealed are: 1-15.

STATUS OF AMENDMENTS

No amendment was filed after final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention greatly reduces hardware costs in connection with providing digital networking video services to a plurality of conventional television sets at a particular site, such as a private home. In the prior art, full set-top systems with their associated hardware expense have been required in conjunction with each television. In the present invention, a centralized gateway and plurality of port extenders replace the

plurality of set-top boxes to achieve a much lower investment and greater flexibility (page 5, line 30, to page 6, line 9).

As defined in claim 1, the present invention provides an apparatus for providing video content to a plurality of televisions (30-32 in Figure 1) located at a site (page 6, lines 12-15). A centralized gateway 25 at a centralized gateway location within the site connects to the plurality of televisions and to a digital network supplying packet-based video content according to a plurality of selectable video feeds (page 9, lines 9-14). Centralized gateway 25 comprises a wide-area network interface (53 and 54 in Figure 3) for receiving network packets from the digital network (page 7, line 31, to page 8, line 3). A processor (50 in Figure 3) is provided in centralized gateway 25 coupled to the wide-area network interface for initiating requests for selected video feeds and for converting the received network packets into at least one compressed data stream (page 9, lines 23-27). A plurality of decoders (60, 63, 66, 70 in Figure 3) in centralized gateway 25 are coupled to processor 50 for uncompressing a respective data stream (page 9, lines 27-31). A plurality of television adapters 61, 64, 67, 71 in Figure 3) in centralized gateway 25 are coupled to the decoders and each are adapted to be coupled to one of the televisions, wherein the television adapters generate television signals usable by the televisions without further processing in response to a selected uncompressed data stream (page 9, line 32, to page 10, line 3). At least one gateway-to-local-area network interface (55 in Figure 3) is provided in centralized gateway 25 (page 8, lines 3-6). An address server (56 in Figure 3) is provided in centralized gateway 25 for assigning IP addresses, each assigned IP address corresponding to a respective one of the televisions (page 8, lines 8-19).

A plurality of port extender modules (43-45 in Figure 2) are located separately from centralized gateway 25, each associated with a respective television and responsive to a corresponding IP address (page 6, lines 25-28, and page 8, lines 11-19). The television signals are not processed by the port extender modules (page 9, line 30, to page

10, line 3). Each port extender module comprises at least one peripheral device interface (87, 88, 89, 91, 93 in Figure 6) for connecting to a peripheral user device (47, 90, 92, 94 in Figure 6) providing user data, wherein the user data includes selection data to be provided to the processor to identify selected video feeds for the requests (page 11, lines 25-32). A local-area network interface (84 in Figure 6) is provided in the port extender module coupled to gateway-to-local-area network interface. A protocol encapsulation processor (85 in Figure 6) is provided in the port extender module for transporting the user data to the local-area network interface which forwards the user data to the processor in centralized gateway 25 (page 11, lines 18-30).

Claim 8 further defines the invention of claim 1. It recites that processor 50 determines whether selection data from one port extender module is equivalent to selection data from another port extender module and, if they are equivalent, provides a corresponding video feed to both televisions corresponding to the one and another port extenders (page 10, line 24, to page 11, line 3).

Claim 14 defines the present invention as a method for providing video content in a facility having a plurality of televisions. A centralized gateway at a centralized gateway location within said facility is connected to a digital network that supplies packet-based video content according to a plurality of selectable video feeds (steps 100 and 101 in Figure 9; and page 14, lines 13-23). A first television supply cable is connected to a first respective television adapter output of the centralized gateway, the first respective television adapter being in the centralized gateway (step 102; and page 14, line 24, to page 15, line 5). A second television supply cable is connected to a second respective television adapter output of the centralized gateway, the second respective television adapter being in the centralized gateway (step 102; and page 14, line 24, to page 15, line 5). A first port extender module is connected to the centralized gateway, the first port extender being associated with a first television coupled to the first television supply cable, the first port extender module being located separately from the centralized

gateway (step 103 in Figure 9; and page 15, lines 6-8). A second port extender module is connected to the centralized gateway, the second port extender being associated with a second television coupled to the second television supply cable, the second port extender module being located separately from the centralized gateway (step 103 in Figure 9; and page 15, lines 6-8). The first port extender module communicating with the centralized gateway to request an IP address (step 105; and page 15, lines 8-11). The centralized gateway assigns a first IP address to the first port extender module, the centralized gateway further associating the first IP address with the first television adapter (step 106; and page 15, lines 11-13). The second port extender module communicating with the centralized gateway to request an IP address (step 105; and page 15, lines 8-11). The centralized gateway assigns a second IP address to the second port extender module, the centralized gateway further associating the second IP address with the second television adapter (step 106; and page 15, lines 11-13). The first port extender module communicates with a first remote control for identifying a first selected video feed (step 107; and page 15, lines 14-19). The first port extender module sends selection data to the centralized gateway in response to the first selected video feed, the selection data including the first IP address (step 108; and page 15, lines 20-26). The centralized gateway retrieves the first selected video feed from the digital network and generates a corresponding first television signal at the first television adapter, wherein the centralized gateway identifies the first television adapter in response to the first IP address, wherein the first television signal is reproducible by the first television without further processing, and wherein the first television adapter sends the first television signal to the first television over the first television supply cable such that the first television signal is not processed by the first port extender module (steps 109 and 110 in Figure 9, and page 15, line 26, to page 16, line 2).

Claim 15 further defines the invention of claim 14. It recites that the second port extender module communicates with a second remote control for identifying a

second selected video feed (step 107 in Figure 9; and page 15, lines 14-19). The second port extender module sends selection data to the centralized gateway in response to the second selected video feed, the selection data including the second IP address (step 111 in Figure 10; and page 16, lines 5-8). The centralized gateway compares the first selected video feed and the second selected video feed (step 112 in Figure 10; and page 16, lines 8-10). If the first and second selected videos feeds are the same, then the centralized gateway couples the first television signal to the first and second television adapters simultaneously (step 113; and page 16, lines 10-13). If the first and second selected videos feeds are not the same, then the centralized gateway retrieves the second selected video feed from the digital network and generates a corresponding second television signal at the second television adapter, wherein the centralized gateway identifies the second television adapter in response to the second IP address (steps 114 and 115 in Figure 10; and page 16, lines 13-18).

None of the claims contain either a means plus function or a step plus function element.

GROUND OF REJECTION TO BE REVIEWED

1. Whether Claims 1-15 are unpatentable under 35 U.S.C. §103(a) over Laksono (Pub. No. US 2006/0080707) in view of Eames et al (Patent 6,493,875).

ARGUMENT

1. Rejection Under 35 USC 103(a) Laksono in View of Eames

Claim 1

Claim 1 recites that the centralized gateway has a plurality of decoders decompressing respective data streams and a plurality of television adapters generating

television signals usable by a television in response to a selected uncompressed data stream. In order to allow a user to select desired content at a particular television, the port extenders associated with each television provides selection data to the processor in the centralized gateway via a local-area network interface. The television signals are not processed in the port extenders. Decoding and decompression are handled in the centralized gateway rather than locally at each port extender/television.

In contrast, Laksono distributes packetized digital data from a multimedia server. As disclosed in paragraphs [0082] and [0083], a user makes a channel selection at a client module 14-22 which is relayed to multimedia server 12. The data for the selected channel is multiplexed with other channels selected by other client modules to generate a multiplexed stream of data. The stream of data is sent to all the client modules. Each client module has to extract its desired channel from the multiplex stream. Contrary to the statement in the rejection that the server in Laksono generates television signals usable by the televisions without further processing, it is clear that Laksono requires the client modules to perform extraction of a digital signal from a multiplexed stream and to convert the extracted data into a signal usable by a television. The rejection acknowledges that the multimedia server in Laksono lacks television adapters. Without such adapters, the multimedia server of Laksonon cannot generate the television signals as required in claim 1.

The final rejection argues that because Laksono processes an RGB format that it generates usable television signals. This argument ignores the actual teachings in paragraph [0082] of Laksono which states:

The data corresponding to channel 3 is then multiplexed with the data for the other channels and transmitted from the multimedia server 12 to each of the client modules 14-22.

Thus, the client modules must demultiplex the signals before providing a signal to the televisions because multiplexed data is not usable by a standard television.

Eames merely shows decoding of video signals for combining them onto a shared media. Therefore, Eames fails to strengthen the rejection or to correct for the deficiencies of Laksono. The plurality of television adapters located in the claimed centralized gateway each have a respective output coupled to one of the televisions. Rather than a multiplexed signal, each television adapter provides television signals usable by the television without further processing. The combined teachings of Laksono and Eames fail to produce the claimed features. Moreover, the references do not suggest the claimed apparatus nor do they make it obvious to try. Therefore, claim 1 is allowable and the rejection should be reversed.

Claim 8

Claim 8 recites that the processor determines whether selection data from one port extender module is equivalent to selection data from another port extender module and, if they are equivalent, provides a corresponding video feed to both televisions corresponding to the one and another port extenders. Laksono multiplexes together the selections of each client module. Eames combines different video signals onto a shared media. In contrast, claim 8 detects when there is a common selection from more than one port extender module so that a video feed from one television adapter can be provided to both televisions, thereby avoiding the need for two television adapters to decode and format the same video selection. Each television still only receives one selection instead of a plurality of multiplexed selections as in Laksono and Eames. Therefore, claim 8 is allowable and the rejection should be reversed.

Claim 14

Claim 14 recites 1) a centralized gateway having television adapters and 2) port extender modules communicating with the centralized gateway. The port extender modules communicate with remote controls for identifying selected video feeds. The centralized gateway retrieves the selected video feeds and generates at least one corresponding television signal at the television adapters, wherein the television signal is reproducible by the television without further processing. The television adapter sends the television signal to the television over a television supply cable such that the television signal is not processed by the port extender module. Thus, claim 14 likewise distinguishes from Laksono and Eames for the reasons as discussed regarding claim 1. The rejection of claim 14 should also be reversed.

Claim 15

Claim 15 recites that the second port extender module communicates with a second remote control for identifying a second selected video feed. The second port extender module sends selection data to the centralized gateway in response to the second selected video feed, the selection data including the second IP address. The centralized gateway compares the first selected video feed and the second selected video feed. If the first and second selected videos feeds are the same, then the centralized gateway couples the first television signal to the first and second television adapters simultaneously. If the first and second selected videos feeds are not the same, then the centralized gateway retrieves the second selected video feed from the digital network and generates a corresponding second television signal at the second television adapter, wherein the centralized gateway identifies the second television adapter in response to the second IP address. Thus, claim 15 recites limitations similar to claim 8, and it is allowable for the same reasons as discussed above in connection with claim 8.

CONCLUSION

The final rejection has failed to establish a case of prima facie obviousness of any of claims 1-15. The prior art relied upon in the final rejection neither teaches nor suggests the structure or function of the present invention nor does it provide any teaching which can obtain the significant advantages which are achieved by the present invention. Accordingly, the rejection contained in the final rejection dated January 28, 2008, should be reversed.

Respectfully submitted,

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CLAIMS APPENDIX

Claims 1-15 now read as follows:

1. Apparatus for providing video content to a plurality of televisions located at a site, comprising:

a centralized gateway at a centralized gateway location within said site for connecting to said plurality of televisions and to a digital network supplying packet-based video content according to a plurality of selectable video feeds, wherein said centralized gateway comprises;

a wide-area network interface in said centralized gateway for receiving network packets from said digital network;

a processor in said centralized gateway coupled to said wide-area network interface for initiating requests for selected video feeds and for converting said received network packets into at least one compressed data stream;

a plurality of decoders in said centralized gateway coupled to said processor for uncompressing a respective data stream;

a plurality of television adapters in said centralized gateway coupled to said decoders and each adapted to be coupled to one of said televisions, said television adapters generating television signals usable by said televisions without further processing in response to a selected uncompressed data stream;

at least one gateway-to-local-area network interface in said centralized gateway; and

an address server in said centralized gateway for assigning IP addresses, each assigned IP address corresponding to a respective one of said televisions; and

a plurality of port extender modules located separately from said centralized gateway, each associated with a respective television and responsive to a corresponding IP address, wherein said television signals are not processed by said port extender modules, and wherein each port extender module comprises;

at least one peripheral device interface in said port extender module for connecting to a peripheral user device providing user data, said user data including selection data to be provided to said processor to identify selected video feeds for said requests;

a local-area network interface in said port extender module coupled to said gateway-to-local-area network interface; and

a protocol encapsulation processor in said port extender module for transporting said user data to said local-area network interface which forwards said user data to said processor in said centralized gateway.

2. The apparatus of claim 1 wherein each of said port extender modules is located proximate to its respective television.

3. The apparatus of claim 1 further comprising a wireless communication link between said gateway-to-local area network interface and said local-area network interface.

4. The apparatus of claim 1 wherein said gateway-to-local area network interface and said local-area network interface are comprised of respective transceivers coupled together via a cable carrying said television signals.

5. The apparatus of claim 1 further comprising a network UTP cable connected between said gateway-to-local area network interface and said local-area network interface.

6. The apparatus of claim 1 wherein said peripheral device interface includes a remote control interface for receiving said selection data from a remote control device.

7. The apparatus of claim 6 wherein said gateway includes a storage media containing a compressed video file, and wherein said selection data can further select viewing of said video file at said respective television.

8. The apparatus of claim 1 wherein said processor determines whether selection data from one port extender module is equivalent to selection data from another port extender module and, if they are equivalent, provides a corresponding video feed to both televisions corresponding to said one and another port extenders.

9. The apparatus of claim 1 wherein said peripheral device interface includes a serial bus interface.

10. The apparatus of claim 1 wherein said peripheral device interface includes a game-port interface.

11. The apparatus of claim 1 wherein said peripheral device interface includes a keyboard interface.

12. The apparatus of claim 1 wherein said television adapters comprise outputs for connecting to a standard television coaxial cable.

13. The apparatus of claim 1 wherein said centralized gateway includes a plurality of gateway-to-local-area network interfaces, each connected to a respective one of said port extender modules.

14. A method for providing video content in a facility having a plurality of televisions, said method comprising the steps of:

connecting a centralized gateway at a centralized gateway location within said facility to a digital network that supplies packet-based video content according to a plurality of selectable video feeds;

connecting a first television supply cable to a first respective television adapter output of said centralized gateway, said first respective television adapter being in said centralized gateway;

connecting a second television supply cable to a second respective television adapter output of said centralized gateway, said second respective television adapter being in said centralized gateway;

connecting a first port extender module to said centralized gateway, said first port extender being associated with a first television coupled to said first television supply cable, said first port extender module being located separately from said centralized gateway;

connecting a second port extender module to said centralized gateway, said second port extender being associated with a second television coupled to said second television supply cable, said second port extender module being located separately from said centralized gateway;

said first port extender module communicating with said centralized gateway to request an IP address;

said centralized gateway assigning a first IP address to said first port extender module, said centralized gateway further associating said first IP address with said first television adapter;

said second port extender module communicating with said centralized gateway to request an IP address;

said centralized gateway assigning a second IP address to said second port extender module, said centralized gateway further associating said second IP address with said second television adapter;

said first port extender module communicating with a first remote control for identifying a first selected video feed;

said first port extender module sending selection data to said centralized gateway in response to said first selected video feed, said selection data including said first IP address; and

said centralized gateway retrieving said first selected video feed from said digital network and generating a corresponding first television signal at said first television adapter, wherein said centralized gateway identifies said first television adapter in response to said first IP address, wherein said first television signal is reproducible by said first television without further processing, and wherein said first television adapter sends said first television signal to said first television over said first television supply cable such that said first television signal is not processed by said first port extender module.

15. The method of claim 14 further comprising the steps of:

said second port extender module communicating with a second remote control for identifying a second selected video feed;

said second port extender module sending selection data to said centralized gateway in response to said second selected video feed, said selection data including said second IP address;

said centralized gateway comparing said first selected video feed and said second selected video feed;

if said first and second selected videos feeds are the same, then said centralized gateway coupling said first television signal to said first and second television adapters simultaneously; and

if said first and second selected videos feeds are not the same, then said centralized gateway retrieving said second selected video feed from said digital network and generating a corresponding second television signal at said second television adapter, wherein said centralized gateway identifies said second television adapter in response to said second IP address.

EVIDENCE APPENDIX

No evidence is being submitted under 37 CFR §§1.130, §§1.131, §§1.132, or otherwise.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings and no corresponding decisions rendered.